DOCUMENT RESUME

ED 064 625 CG 007 158

AUTHOR Thompson, Donald L.
TITLE The Relationship of Parent-Child Interaction and Intelligence Among Children from Large Families.
PUB DATE Apr 72
NOTE 8p.; Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois, April 3-7, 1972

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Behavioral Science Research; Family Influence; Human Relations; *Intelligence; *Interaction; *Interaction Process Analysis; *Parent Child Relationship; Parent Influence; *Parent Role; Parents; Relationship

ABSTRACT

This study explored the difference in intelligence among children from large families in relation to parent-child interaction patterns. The sample consisted of 56 children from large families living in Central West Virginia. The 56 children represented 20 families, all of which had five or more children, and were of similar economic circumstances. Measurement of parent-child interaction was accomplished using a locally produced scale which was administered verbally to the children and designed to measure a child's assessment of the quality and quantity of their parents' interaction with that child. The child's response to each question was rated into one of three categories provided by each item on the scale. The results of this study indicate the value of parent-child interaction in facilitating the development of children's cognitive skills. The author concludes that programs such as the Department of Health, Education, and Welfare's Project Home Start should answer many questions about the value of educating parents to be effective educators of their children. (Author/BW)

ED 064625

CG
N-NPD

CG 007 158

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

THE RELATIONSHIP OF PARENT-CHILD INTERACTION AND INTELLIGENCE AMONG CHILDREN FROM LARGE FAMILIES [1]

Donald L. Thompson, Ed. D.
Assistant Professor of Education
University of Connecticut

FILMED FROM BEST AVAILABLE COPY

CG 007 158

[1] Paper presented at the 1972 AERA Annual Meeting on Tuesday, April 4, 1972.

THE RELATIONSHIP OF PARENT-CHILD INTERACTION AND INTELLIGENCE AMONG CHILDREN FROM LARGE FAMILIES

Donald L. Thompson, Ed. D.
Assistant Professor of Education
University of Connecticut

Introduction

For public school teachers who make the initial contact with school children in kindergarten or first grade, the disadvantaged child is not difficult to identify. The disadvantaged child often dresses poorly, may look undernourished, act tired and listless, and most important, many of these children lack an adequate base of language and perceptual skills. The disadvantaged child's limited knowledge of the cultural symbols of the school environment (i.e. sounds, shapes, colors, textures and words) is a serious deficit in his pre-school experience.

Much of the research relating to the etiology of cultural deprivation points to two major factors. First, the environment often provides little in the way of sensory stimulation and second, and more specifically, the parents or surrogates have less interaction with children, and the quality of the interaction which does occur is such that it does not facilitate maximal intellectual development.

Bernstein (1959) and Havighurst (1964) indicate that language interaction between parent and child has a significant effect in developing the verbal skills of children. Social class is a major factor which is related to language interaction between parent and child. The lower classes tend to favor a "public" language which is curt and generally non-descriptive. The "formal" language of the middle class tends to be accurate gramatically,

and in syntax, and is more complex in the manipulation of abstract concepts.

Research by Deutsch (1965) supports the hypothesis that parent-child verbal interaction is important to the cognitive development of children. Deutsch indicates that other factors such as child-rearing practices and sex roles may also be important factors. Hunt (1964) suggests an interesting hypothesis concerning family size, overcrowding and intellectual functioning. He hypothesizes that during the first years of life, overcrowding may provide a wide variety of visual and auditory stimuli that actually enhance intellectual development. However, after year one, overcrowding may be an inhibiting factor because of the limited space for motor exploration and because parents have little time to interact with the children.

The purpose of this investigation was to explore the difference in intelligence among children from large families in relation to parent-child interaction patterns. Previous research indicates that family size has a negative relationship to intelligence. As family size increases, the IQ of the children from larger families tends to be lower. The major criticism of the studies which have found this relationship is that the researcher failed to control the socio-economic status of the families (i.e. most large families are poor). The socio-economic status of research subjects has been determined by a variety of variables; the most common of which is economics. Other variables such as occupation of the father, neighborhood of residence, type of residence, and social attitudes have also been used to determine class. This study controls for two of the major factors left to chance in earlier research. By controlling for

family size and economic factors in the sample, it was possible to isolate one primary dimension for study, that of parent-child interaction and its impact on the development of intelligence.

Methods and Procedures

The sample for this study consisted of 56 children from large families living in Central West Virginia. The 56 children represent 20 families, all of which have five or more children, and are of similar economic circumstances. Children from families in Group A all scored below Full Scale IQ 90 on the WISC, while all of the children from families in Group B scored above Full Scale IQ 95 on the WISC. Group A was composed of thirty children while Group B had 26 children. For the children of a family to be included in the total sample, two criterion had to be met: The family had to have at least five children, and the family standard of living (income) had to fall below the federal poverty guidelines. Inclusion of a child in Group A or B was then based on the IQ of all the elementary children from his family meeting the IQ criterion for Group A or B. Children from a family where sibling's IQ's varied so that one child would be considered in Group A while another child would qualify for Group B were not included in this study. There were eight families with a total of 17 children in this excluded category. Only families where all of the children met either Group A or B criterion were included in the sample. All the elementary school children from each of the 20 families were tested. Secondary school children were not included because they were unavailable for testing.

Measurement of parent-child interaction was accomplished using a locally produced likert-type scale which was administered verbally to the

children at the time of the WISC testing. The scale is designed to measure a child's assessment of the quality and quantity of their parent's interaction with that child. The child's response to each question was rated into one of three categories provided by each item on the scale. The categories are numbered one through three, with the higher numbers indicating greater quantity and higher quality parent-child interaction. The individual item scores were added to obtain a total-score, making a possible score range from 10 to 30. Higher scores indicate a greater quantity/higher quality parent-child interaction, as perceived by the child. Comparisons of groups A and B on the parent-child interaction were made using one-way analysis of variance techniques.

Results

Group A had a mean score of 18 on the parent-child interaction scale, while Group B had a mean of 25. ANOVA indicates that these two means are significantly different. ($F = <.01$) Children from Group B (IQ 95 and above) perceived their parent's interaction with themselves to be of significantly greater quantity and of a higher quality when compared to children from Group A (IQ 90 and below). Parents in Group B were perceived by their children as more likely to read to their children, to give elaborative responses to their children's questions, to be more warm and loving, and to generally be more involved with their children than parents from Group A.

Discussion and Conclusions

The results of this study indicate the value of parent-child interaction in facilitating the development of children's cognitive skills. Why were parents in Group B more involved, and more effective in their

interaction with their children? Did they love their children more than parents in Group A; were they more motivated, more concerned?

It is the rare parent who is not concerned about the well being of his child. The parent living in poverty loves his child just as surely as does the middle class parent (Woodruff, 1964). It is likely that parents in Group A and B have an equal commitment to the welfare of their children. The difference between the two groups of parents is more likely in their knowledge of child development and the confidence they have in applying this knowledge when interacting with their children.

Research indicates that it is possible to teach child development skills to persons with little formal education (Thompson and Nesselroad, 1971; Thompson, 1972). Extensive research on Parent-Child Centers (HEW) indicates that economically deprived parents are vitally interested in the welfare of their children and can be taught to be effective facilitators of intellectual/cognitive development of their children.

Reviews of research on compensatory education programs by Jensen, 1969, and others, indicate that many of these programs have been unsuccessful in ameliorating the educational deficits of the disadvantaged. Extensive data exists which indicates the failure of compensatory education programs in the public schools. Head Start has been basically unsuccessful in making any long-term improvements in the school performance of target children. Because of the so-called "washout" effect of Head Start gains, Follow-Through (a program of compensatory education which follows the child through the upper elementary grades) was established. The limited data available on Follow-Through would appear to support the conclusion that while Follow-Through tends to sustain gains made by the children in Head

Start while the children are Follow-Through participants, the gains "washout" after the child leaves the Follow-Through program. It would appear that in order to have a permanent effect, compensatory education must become preventative education. A model of preventative education must begin in the home. Parents need help in facilitating maximal intellectual growth of children. Research reported by Veneman, 1971, indicates that while parent education programs are costly, they are also extremely effective in enhancing the intellectual growth of children.

The Office of Child Development, Department of Health, Education and Welfare has taken a major step in establishing a preventative, compensatory education model. On February 15, 1972, Project Home Start will be initiated. This program is designed to bridge the gap that has traditionally existed between the disadvantaged home and the school. Maximal parent education and involvement is one of the major goals of Home Start. The program is being funded as a research and development program with an independent evaluation contract in excess of one million dollars. The findings of this evaluation should answer many questions about the value of educating parents to be effective educators of their children.

REFERENCES

Bernstein, Basil, Social structure, language, and learning, Educational Research, 3, 1961, pp. 163-176.

Havighurst, Robert, Speech at 27th Annual Reading Conference, University of Chicago, July 1964.

Deutsch, Martin, The role of social class in language development and cognition, American Journal of Orthopsychiatry, 35, 1965, pp. 78-88.

Hunt, McVicker J., The psychological basis for using pre-school enrichment as an antidote for cultural deprivation, Merrill-Palmer Quarterly, 10, 1964, pp. 209-248.

Woodruff, Myra, The education of the disadvantaged pre-school child, The Quarterly, Western New York School Study Council, XVI, no. 2 (Dec. 1964) pp. 1-4. Give attention to verbal expression and the necessity to involve parents; most parents are anxious to help child at home.

Thompson, D.L. and Nessleroad, E., The relationship of teacher's verbalization and the development of verbal skills of culturally disadvantaged pre-school children, California Journal of Educational Research, Vol. XXII, No. 4, Sept. 1971.

Thompson, D.L., Headstart at home: a model for pre-school education, Appalachia, January, 1972.

Jensen, Arthur, How much can we boost IQ and scholastic achievement, Harvard Educational Review, Winter 1969, pp. 1-123.

Veneman, John, "Text of Remarks made by Undersecretary John Veneman, HEW, to the Pacific Forum on Mental Retardation," (drawn from research by Dr. Rick Heber), Honolulu, Hawaii, Sept. 29, 1971, Released by Office of Public Affairs, HEW, Washington D.C.